

1. Amendments to the Claims:

A clean version of the entire set of pending claims (including amendments to the claims, if any) is submitted herewith per 37 CFR 1.121(c)(3). This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) An apparatus ~~having means~~ for segmenting a series of 2D or 3D images obtained of a target object within a patient ~~patient's organ or other body part, wherein, comprising:~~

~~a first segmentation is carried out~~ segmenter for performing a first segmentation on a first image of the a first series of images, ~~and wherein the first segmentation is being used for the subsequent segmentation of the a remainder of images of said first series of images, characterized in that in relation to the images said means carry out; and~~

~~a transform calculator for performing a series of transformations, wherein each separate transformation embodies comprises a fitting operation between two images of said first series of images, and wherein substantially all images of the series of images are subjected to such a transformation, and~~

~~wherein the first segmentation on the first image of the first series of images is modified and subsequently applied to any further image of the series of images according to the transformation or sequence of transformations of each further image of the first series of images that fits the said first image to said further image of the first series of images.~~

2. (Currently amended) An ~~The~~ apparatus according to claim 1, ~~characterized in that wherein~~ each transformation relates to adjacent or immediately successive images of the first series of images.

3. (Currently amended) An ~~The~~ apparatus according to claim 1, ~~characterized~~

~~in that there are two or more series of images and that~~ wherein the segmentation of ~~a~~ the first series of images is applied to all a second series of images in addition to the first series of images.

4. (Currently amended) ~~An~~ The apparatus according to claim 3, ~~characterized in that the respective~~ wherein each of the first and second series of images are is collected ~~with different~~ from one of means of monitoring selected from the a group consisting of:

magnetic resonance (MR), computer tomography (CT), nuclear medicine (NM) and ultrasound (US).

5. (Currently amended) ~~An~~ The apparatus according to claim 3, ~~characterized in that the respective~~ wherein the first and second series of images are collected at different times.

6. (Currently amended) ~~An~~ The apparatus according to claim 1, wherein the images relate to a sphere-like organ ~~such as a heart,~~ characterized in that and prior to establishing the said first series of transformations, the first series of images are is converted to a modified first series of images showing the walls of the organ in a flat plane wherein ~~the left and right part of~~ opposing sides of said plane substantially correspond to the an inside and an outside of said organ, and that the said series of transformations are applied to the modified first series of images.

7-10. (Canceled)

11. (Currently amended) A method for segmenting a series of 2D or 3D images obtained of a target object within a patient ~~patient's organ or other body part,~~ wherein, the method comprising:

performing a first segmentation ~~is carried out on a first image of the~~ a first series of images to obtain a first segmented image; and wherein the first

segmentation is used for the subsequent segmentation of ~~the remainder of other~~ images of said first series of images, ~~characterized in that in relation to the images;~~

~~performing~~ a series of transformations are established wherein each separate transformation embodies comprises a fitting operation between two images of said series of images, ~~and wherein substantially all images of the series of images are subjected to such a transformation;~~ and

that modifying and applying the first segmentation on the first image of the first series of images is ~~modified and subsequently applied to any further image of the series of images according to the~~ to each transformation ~~or of the~~ sequence of transformations that respectively fits the said first image to said each further image of the first series of images.

12. (Currently amended) A The method according to claim 11, characterized ~~in that~~ wherein each transformation relates to adjacent or immediately successive images of the first series of images.

13. (Currently amended) A The method according to claim 11, characterized ~~in that there are two or more series of images and that the segmentation of a~~ the first series of images is applied to all at least a second series of images.

14. (Currently amended) A The method according to claim 13, characterized ~~in that~~ further comprising:

collecting the respective first and second series of images are collected with different means of monitoring, respectively, selected from the a group consisting of:
magnetic resonance (MR), computer tomography (CT), nuclear medicine (NM)
and ultrasound (US).

15. (Currently amended) A The method according to claim 13, characterized ~~in that~~ wherein the respective first and second series of images are collected at

different times.

16. (Currently amended) A The method according to claim 11, wherein the images relate to a sphere-like organ ~~such as a heart, characterized in that, the~~ method further comprising:

prior to establishing the said series of transformations, converting the first series of images ~~are converted~~ to a modified first series of images showing the walls of the organ in a flat plane wherein ~~the left and right part~~ opposing sides of said plane substantially correspond to ~~the~~ an inside and an outside of said organ, and that wherein the said series of transformations are applied to the modified first series of images.

17. (New) A method for segmenting a series of 2D or 3D images, the method comprising:

performing a first segmentation of a first image of the series of images to obtain a first segmented image according to a selected segmentation process;

calculating a transformation of the first image and a successive second image of the series of images to determine a best fit of the first image and the second image; and

converting the first segmented image and the calculated transformation of the first and second images into a second segmented image corresponding to the second image.

18. (New) The method of claim 17, further comprising:

calculating a transformation of the first image and a third image of the series of images to determine a best fit of the first image and the third image; and

converting the first segmented image and the calculated transformation of the first and third images into a third segmented image corresponding to the third image.

19. (New) The method of claim 17, further comprising:

calculating a transformation of the second image and a successive third image of the series of images to determine a best fit of the second image and the third image; and

converting the first segmented image and the calculated transformation of the second and third images into a third segmented image corresponding to the third image.

20. (New) The method of claim 17, further comprising:

converting the series of images from an original series of images prior to segmenting the first image,

wherein each image of the series of images comprises a wall of an organ in a flat plane, opposing sides of the wall respectively corresponding to inside and outside the organ.

21. (New) The method of claim 20, wherein converting the series of images from the original series of images comprises a resample operation.